

UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 C.F.R. 1.53(b))

Attorney Docket No. PD-01-946 (21797-0003)

First Inventor KUKULKA et al.

Title SOLAR CELL STRUCTURE WITH SOLAR CELLS HAVING REVERSE-BIAS PROTECTION USING AN IMPLANTED CURRENT SHUNT

Express Mail Label No. EU 692447500 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and a duplicate for fee processing)
2. Applicant claims small entity status.
See 37 CFR 1.27.
3. Specification [Total Pages 12]
(preferred arrangement set forth below)
 - Descriptive title of the Invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Description of the Drawings (*if filed*)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
4. Drawing(s) (35 U.S.C. 113) [Total Sheets 4]
5. Oath or Declaration [Total Pages 2]
 a. Newly executed (original or copy)
 b. Copy from a prior application (37 CFR 1.63 (d))
(for a continuation/divisional with Box 18 completed)
 i. **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).
6. Application Data Sheet. See 37 CFR 1.76

ADDRESS TO:Assistant Commissioner for Patents
Box Patent Application
Washington, DC 20231

7. CD-ROM or CD-R in duplicate, large table or Computer Program (*Appendix*)
8. Nucleotide and/or Amino Acid Sequence Submission (*if applicable, all necessary*)
 a. Computer Readable Form (CRF)
 b. Specification Sequence Listing on:
 i. CD-ROM or CD-R (2 copies); or
 ii. paper
 c. Statements verifying identity of above copies

ACCOMPANYING APPLICATIONS PARTS

9. Assignment Papers (cover sheet & document(s))
10. 37 C.F.R. §3.73(b) Statement Power of (when there is an assignee) Attorney
11. English Translation Document (*if applicable*)
12. Information Disclosure Statement (IDS)/PTO-1449 Copies of IDS Citations
13. Preliminary Amendment
14. Return Receipt Postcard (MPEP 503) (*Should be specifically itemized*)
15. Certified Copy of Priority Document(s) (*if foreign priority is claimed*)
16. Nonpublication Request under 35 U.S.C. 122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35 or its equivalent.
17. Other: Certificate of Express Mailing

18. If a CONTINUING APPLICATION, check appropriate box, and supply the requisite information below and in a preliminary amendment, or in an Application Data Sheet under 37 CFR 1.76:

Continuation Divisional Continuation-in-part (CIP) of prior application No: _____ / _____
 Prior application information: Examiner _____ Group / Art Unit: _____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 5b, is considered a part of the disclosure of the accompanying or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

19. CORRESPONDENCE ADDRESS

Customer Number or Bar Code Label *(Insert Customer No. or Attach bar code label here)* or Correspondence address below

Name	Carmen Santa Maria McNees Wallace & Nurick LLC				
Address	100 Pine Street P.O. Box 1166				
City	Harrisburg	State	PA	Zip Code	17108-1166
Country	USA	Telephone	717-237-5226	Fax	717-237-5300

Name (Print/Type)	Carmen Santa Maria		Registration No. (Attorney/Agent)	33,453
Signature	<i>Carmen Santa Maria</i>		Date	July 7, 2003

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231.

16235 US 5:2003
10/614310

07/07/03

18304 U.S. PTO
07/07/03

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 790

Complete if Known	
Application Number	
Filing Date	July 7, 2003
First Named Inventor	KUKULKA et al.
Examiner Name	n/a
Group / Art Unit	n/a
Attorney Docket No.	PD-01-946 (21797-0003)

METHOD OF PAYMENT (check all that apply)

Check Credit card Money Other None
Order

Deposit Account:

Deposit Account Number

50-1059

Deposit Account Name

McNees Wallace & Nurick LLC

The Commissioner is authorized to: (check all that apply)
 Charge fee(s) indicated below Credit any overpayments
 Charge any additional fee(s) during the pendency of this application
 Charge fee(s) indicated below, except for the filing fee
to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1001 750	2001 375	Utility filing fee	750
1002 330	2002 165	Design filing fee	
1003 520	2003 260	Plant filing fee	
1004 750	2004 375	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	

SUBTOTAL (1) (\$) 750

2. EXTRA CLAIM FEES

Total Claims	-20 **	=	Extra Claims	X	Fee from below	=	Fee Paid
15	-20 **	=	0	X	18	=	0
Independent Claims	2	-3 **	=	0	X	84	= 0
Multiple Dependent	4			X		=	0

Large Entity Small Entity

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1202 18	2202 9	Claims in excess of 20	
1201 84	2201 42	Independent claims in excess of 3	
1203 280	2203 140	Multiple dependent claim, if not paid	
1204 84	2204 42	** Reissue independent claims over original patent	
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent	

SUBTOTAL (2) (\$) 0

3. ADDITIONAL FEES

Large Entity	Small Entity	Fee Description	Fee Paid
Fee Code (\$)	Fee Code (\$)		
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 410	2252 205	Extension for reply within second month	
1253 930	2253 465	Extension for reply within third month	
1254 1,450	2254 725	Extension for reply within fourth month	
1255 1,970	2255 985	Extension for reply within fifth month	
1401 320	2401 160	Notice of Appeal	
1402 320	2402 160	Filing a brief in support of an appeal	
1403 280	2403 140	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive – unavoidable	
1453 1,300	2453 650	Petition to revive – unintentional	
1501 1,300	2501 650	Utility issue fee (or reissue)	
1502 470	2502 235	Design issue fee	
1503 630	2503 315	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17 (a)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	40
1809 750	2809 375	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810 750	2810 375	For each additional invention to be examined (37 CFR § 1.129(b))	
1801 750	2801 375	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	

Other fee (specify) _____

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 40

**or number previously paid, if greater; For Reissues, see above

SUBMITTED BY		Complete (if applicable)		
Name (Print/Type)	Carmen Santa Maria	Registration No. Attorney/Agent	33,453	Telephone 717-237-5226
Signature	<i>Carmen Santa Maria</i>		Date	July 7, 2003

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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CERTIFICATE OF EXPRESS MAILING UNDER 37 C.F.R. 1.10

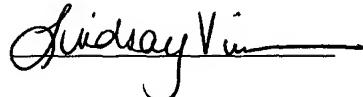
I hereby certify that the following documents are being deposited with the United States Postal Service Express Mail Post Office to Addressee service under 37 C.F.R. 1.10 on the date indicated below, Express Mail Label Number **EU 692447500 US**, dated July 7, 2003 and addressed to:

Mail Stop PATENT APPLICATION
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

1. Return Acknowledgment Postcard
2. Utility Patent Application Cover Sheet
3. Fee Transmittal Form
4. Patent Application (12 Pages)
5. Drawings (3 sheets)
6. Declaration & Power of Attorney (1 copy of executed original, 2 pages)
7. Assignment Recordation Form
8. Assignment (1 copy of executed original, 1 page)
9. Information Disclosure Statement
10. PTO/SB/08
11. References Cited (4)

By: (Type signature) Lindsay Vican

Written Signature:
Date: July 7, 2003

A handwritten signature in black ink that reads "Lindsay Vican". The signature is fluid and cursive, with "Lindsay" on top and "Vican" on the bottom, both starting with a capital letter.